



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/674,765

09/30/2003

Matt Pinter

SPE05 P-101

4464

28101

7590

11/18/2005

VAN DYKE, GARDNER, LINN AND BURKHART, LLP
2851 CHARLEVOIX DRIVE, S.E.
P.O. BOX 888695
GRAND RAPIDS, MI 49588-8695

EXAMINER

TON, ANABEL

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/674,765	PINTER, MATT	
	Examiner	Art Unit	
	Anabel M. Ton	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 28,30 and 35-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Bousfield (6,210,013).
3. Bousfield discloses a panel having an edge and two opposed spaced apart sides extending from the edge, one of the sides comprising an upper side forming a support surface for supporting items on a shelf assembly when the shelf assembly is mounted in a refrigerator, a light source when actuated the light source generating light the light projecting in an initial direction into the panel through the said edge of said panel, and wherein the panel is adapted to redirect the light from the initial direction in an illumination direction through at least one of the sides of said panel; at least one reflective surface for redirecting the light from the initial direction to the illumination direction (figs 5,6,9,10, col. 1 lines 61-67, col. 2 lines 1-35); the panel includes at least one reflective surface for redirecting the light from the initial direction to the illumination direction; the light source comprises a plurality of light sources (Col. 3 lines 2-5); the illumination

Art Unit: 2875

direction is through the upper side for illuminating items supported on the support surface (figs 9-10); the light source is positioned incident the edge(figs 5-6).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 22-27,29 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bousfield (6,210,013) and further in view of Caruso (5,278,252).

3. Bousfield discloses the claimed invention except for the recitation of brackets being molded to the panel at respective opposed edges by a plastic body. Bousfield discloses a panel having a pair of opposed edges and two opposed spaced apart sides extending from said opposed edges and defining an upper side and a side of the panel a light source positioned in a plastic body and at one edge of the of the panel, the light source generating light an directing the light in an initial direction into the panel through the edge of the panel and the panel being adapted to redirect the light from the initial direction in an illumination direction through at least one of the upper side and lower side of the panel; the light source comprises a plurality of light sources (col. 3 lines 3-5); the light sources are positioned along opposed edges (col. 3 lines 3-5);the light sources

Art Unit: 2875

are positioned at both of opposed edges; at least one of the light sources is positioned at another edge of the panel (since Bousfield discloses the light source at one edge in figures 5 and 6, and discloses in col. 3 lines 3-5 that two opposing light sources may be used, Bousfield is considered to anticipate the previous limitations of applicant's location of the light sources with respect to the panel). Caruso discloses an edge illuminated shelf assembly, with brackets that engages the glass shelf at the front and rear edges, the multiple light sources are housed at the front of the panel within a housing that has a diffuser pivotally mounted to the housing to access the lights.

4. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the panel of Bousfield to include brackets as taught by Caruso for the purpose of mounting the panel to Bousfield to a refrigerator that has mounting recesses for brackets. With regards to the brackets being molded to the sides of the panel with a plastic body, it would have been obvious to one of ordinary skill in the art at the time the invention was made to mold the brackets of Caruso to the modified panel of Bousfield with a plastic body since it has been held that forming in one piece a structure which has formerly been formed in two, or more pieces, involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 USPQ 164 (1893). Furthermore, molding the brackets to the panel of Bousfield would inhibit light transmitted through the panel to seep or escape through the sides of the panel therefore providing a greater amount of light emitted from the emission surface. With regards to a plastic body being used to mold the brackets to the panel, it would have been obvious to one

Art Unit: 2875

of ordinary skill in the art to use a plastic body to mold the brackets to the panel since a plastic body such as a desired amount of epoxy to mold both bodies two each other to provide a seal between the two bodies would be well within ordinary skill in the art.

5. With regards to claim 29, the light source comprising a light emitting diode, the examiner takes Official Notice that the use of LEDs is old and well known in the illumination art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute an LED for the light source in the system of Bousfield. One would have been motivated since LEDs are recognized in the illumination art to have many desirable advantages, including reduced size, high efficiency, low power consumption, long life, resistance to vibrations, and low heat production, over other light sources.

With regards to claim 31, the panel including a plurality of reflective surface, It would have been obvious to one of ordinary skill in the art at the time the invention was made to have multiple reflective surface in the device of Bousfield since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Furthermore including a plurality of reflective surfaces in the device would enhance light reflection towards a desired area.

With regards to claims 32-34, the reflective surface being arranged in an array across the panel wherein the reflective surfaces redirect the light from the initial direction to the illumination direction and being formed by prismatic shapes formed at one of the sides of the panel and the prismatic shapes comprising

Art Unit: 2875

prismatic indents extending into the panel, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a plurality of reflective prismatic surfaces to redirect the light from the initial direction to the illumination direction in the device of Bousfield since such an assembly is commonly used in prismatic waveguides for the purpose of redirecting and reflecting light to an emission surface from the light entry or incident surface of the panel (see previously cited art Parker(6,755,547)).

6. Claims 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bousfield and further in view of Parker (6,755,547).

7. Bousfield discloses the claimed invention except for the recitation of the panel including light reflecting surfaces. Bousfield discloses a panel having an edge and two opposed spaced apart sides defining an upper side and a lower side of the panel the upper surface forming a support surface for items supported by the shelf assembly when the shelf assembly is mounted in the refrigerator, a light source positioned at the edge the light source generating light. Parker discloses a light emitting panel having a light source positioned at the edge of the light panel including a plurality of light reflecting (figs 1-2,4a-4d) surfaces the light reflecting surfaces redirecting the light from the initial direction to an illumination direction through at least one of the upper side and the lower side of the panel the light reflecting surfaces arranged across at least a portion of the panel wherein a first group of the light reflective surfaces redirect a first portion of the light through the first portion of the one side and a subsequent group of the light reflective surfaces redirect other portions of the light through other portions of the

Art Unit: 2875

one side (col.5 lines 65-67, col.6 lines 1-16); the light reflecting surface are arranged in rows wherein each of the rows includes at least one respective light reflective surface each of the rows offsetting the respective light reflecting surface from a respective light reflecting surface of the adjacent row (22,25, 4d); the light reflecting surfaces are arranged to extend substantially across the panel wherein the reflective surfaces redirect light through one side substantially across the panel (4d).

8. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the panel of Bluefield to include the plurality of reflective surfaces as taught by Parker since as taught by Parker, such a modification is purposeful for providing a light emitting panel with internally reflecting surface that direct light from an entry surface to an emission surface in an evenly distributed manner to enhance a surface to be illuminated. With regards to the first and second groups of light reflective surfaces, Parker discloses the reflective surfaces distributed throughout the panel therefore teaching multiple groups of reflective surfaces reflecting a portion of light to one side of the emission side and subsequently redirecting light to other portions of the emission side.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anabel M. Ton whose telephone number is (571) 272-2382. The examiner can normally be reached on 08:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The

Art Unit: 2875

fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anabel M Ton
Examiner
Art Unit 2875

AMT



Patricia O'Shea
Supervisory Patent Examiner
Technology Center 2800